

Appl. No. 10/750,025
Amdt. Dated Jan. 27, 2006
Reply to Office Action of October 31, 2005

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A driving apparatus for cold cathode fluorescent lamps, comprising:

- a primary and at least a secondary driving circuits;
- a primary and at least a secondary light tubes;
- a primary and at least a secondary feedback circuits; and
- at least two photosensitive elements corresponding to the primary and said secondary light tubes, respectively;

wherein the primary and said secondary driving circuits provide power to drive the primary and said secondary light tubes, respectively, photoelectric currents of said photosensitive elements alter according to the respective brightness of the primary and said secondary light tubes, the primary feedback circuit receives the photoelectric current of a single corresponding photosensitive element and provides an output signal to the primary driving circuit, and said secondary feedback circuit receives at least two photoelectric currents of said photosensitive elements and provides at least an output signal to said secondary driving circuit in order to keep the brightness of said secondary light tube the same as the brightness of the primary light tube.

Claim 2 (original): The driving apparatus as claimed in claim 1, wherein the photosensitive elements are photo resistors.

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Claim 3 (original): The driving apparatus as claimed in claim 1, wherein the photosensitive elements are photo diodes.

Claim 4 (original): The driving apparatus as claimed in claim 1, wherein the primary driving circuit comprises a self-resonating circuit for providing a high voltage to start the primary light tube.

Claim 5 (original): The driving apparatus as claimed in claim 4, wherein the primary driving circuit further comprises a buck pre-regulator coupled to the self-resonating circuit, for regulating an operation current of the primary light tube.

Claim 6 (original): The driving apparatus as claimed in claim 5, wherein the primary driving circuit further comprises a pulse width modulation circuit coupled between the primary feedback circuit and the buck pre-regulator.

Claim 7 (original): The driving apparatus as claimed in claim 6, wherein the pulse width modulation circuit receives an output signal of the primary feedback circuit, and controls a period of the buck pre-regulator.

Claim 8 (original): The driving apparatus as claimed in claim 1, wherein said secondary driving circuit comprises a self-resonating circuit for providing a high voltage to start said secondary light tube.

Claim 9 (original): The driving apparatus as claimed in claim 8, wherein said secondary driving circuit further comprises a buck

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pre-regulator coupled to the self-resonating circuit, for regulating an operation current of said secondary light tube.

Claim 10 (original): The driving apparatus as claimed in claim 9, wherein said secondary driving circuit further comprises a pulse width modulation circuit coupled between said secondary feedback circuit and the buck pre-regulator.

Claim 11 (original): The driving apparatus as claimed in claim 10, wherein the pulse width modulation circuit receives at least an output signal of said secondary feedback circuit, and controls a period of the buck pre-regulator.

Claim 12 (currently amended): An illumination system, comprising:
a primary sub-system including a primary driving circuit, a primary light tube, a primary photosensitive element and a primary feedback circuit connected in series; and

at least one secondary sub-system including a secondary driving circuit, a second light tube, a secondary photosensitive element and a secondary feedback circuit connected in series;

wherein the primary photosensitive element is further linked to the secondary feedback circuit, the primary feedback circuit being configured so as to be solely influenced by the primary photosensitive element.

Claim 13 (currently amended): A method of providing an array of light tubes with consistent illumination, comprising steps of:

providing a primary sub-system including a primary driving circuit, a primary light tube, a primary photosensitive element and a primary

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feedback circuit connected in series; and

providing at least one secondary sub-system including a secondary driving circuit, a secondary light tube, a secondary photosensitive element and a secondary feedback circuit connected in series;

wherein the primary sub-system and said at least one secondary sub-system are mainly separate from each other except the secondary feedback circuit is also influenced by said primary sub-system for obtaining consistent illumination between the primary sub-system and the secondary sub-system, the primary feedback circuit being configured so as to be solely influenced by the primary photosensitive element.